

Appln No. 09/483,315
Amdt date March 15, 2005
Reply to Office action of September 15, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 75. Cancelled.

76. (Currently amended) A mobile access unit for use in a localized communications system, comprising:

a video input configured to receive real-time video information;

a video output configured to provide real-time video information;

a codec connected to the video input and video output ~~that is configured to encode real-time video information received from the video input, decode encoded real-time video information and provide the decoded real-time video information to the video output;~~ and

a transceiver, comprising:

a transmitter connected to the codec that is configured to transmit a data stream ~~generated~~ provided by the codec over an upstream wireless communication link; and

a receiver connected to the codec that is configured to receive a data stream transmitted over a downstream wireless communication link, which includes encoded real-time video;

wherein the codec is configured to:

encode real-time video information received from the video input; and

multiplex the encoded real-time video with other data to generate the data stream provided by the codec to the transmitter; and

wherein the codec is also configured to:

demultiplex the encoded real-time video from the data stream provided to the codec by the receiver; and

decode the encoded real-time video information and provide the decoded real-time video information to the video output.

77. (Cancelled)

78. (Previously presented) The mobile access unit of claim 76, further comprising a heads up display connected to the video output and configured to receive real-time video.

79. (Previously presented) The mobile access unit of claim 76, further comprising a video camera connected to the video input and configured to provide a real-time video output.

80. (Currently amended) The mobile access unit of claim 76, further comprising:
an audio input configured to receive real-time audio information;
an audio output configured to provide real-time audio information;
wherein the codec is connected to the audio input and the audio output;
wherein the codec is configured to:
encode real-time audio information received from the audio input; ~~decode encoded real-time audio and provide the decoded real-time audio to the audio output;~~
~~wherein the codec is configured to multiplex encoded real-time video with at least the real-time audio encoded by the codec to generate the data stream that is provided to the transmitter; and~~

wherein the codec is configured to:
demultiplex encoded real-time video from the data stream provided by the receiver that also includes at least encoded real-time audio;

decode the encoded real-time audio and provide the decoded real-time audio to the audio output.

81. (Previously presented) The mobile access unit of claim 80, further comprising a headphone set connected to the audio output and configured to receive real-time audio.

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82. (Previously presented) The mobile access unit of claim 80, further comprising a microphone connected to the audio input and configured to provide a real-time video output.

83. (Previously presented) The mobile access unit of claim 76, further comprising:
a user interface input configured to receive information;
wherein the codec is connected to the user interface input and is configured to encode the user interface information;

wherein the codec is configured to multiplex encoded real-time video with at least the encoded user interface information to form a data stream that is provided to the transmitter; and

wherein the encoded user interface information is capable of commanding a remote device.

84. (Previously presented) The mobile access unit of claim 76, wherein the codec is implemented using at least one electronic device.

85. (Currently amended) A communication system, comprising:
at least one mobile access unit configured to communicate in a localized area with a base station, the mobile access unit comprising:

a video input configured to receive real-time video information;

a video output configured to receive real-time video;

a mobile access unit codec connected to the video input and the video output; ~~that is configured to encode real-time video information received from the video input, decode encoded real-time video information and provide the decoded real-time video information to the video output; and~~

a transceiver, comprising:

a mobile access unit transmitter connected to the mobile access unit codec that is configured to transmit a data stream generated by the codec over an upstream wireless communication link; and

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a mobile access unit receiver connected to the mobile access unit codec that is configured to receive a data stream transmitted over a downstream wireless communication link, which includes encoded real-time video;

wherein the mobile access unit codec is configured to:

_____ encode real-time video information received from the video input; and

_____ multiplex the encoded real-time video with other data to generate the data stream provided by the mobile access unit codec to the transmitter; and

wherein the codec is also configured to:

_____ demultiplex the encoded real-time video from the data stream provided to the codec by the receiver; and

_____ decode the encoded real-time video information and provide the decoded real-time video information to the video output; and

a fixed base station, comprising:

memory containing a registry of mobile access units within the localized area;

a transceiver, comprising:

a base station transmitter that is configured to transmit a data stream including real-time video generated over the downstream wireless communication link; and

a base station receiver configured to receive a data stream transmitted over the upstream wireless communication link, which includes encoded real-time video.

86. (Currently amended) The communications system of claim 85, further comprising:

a base station router connected to the base station transceiver;

~~wherein the mobile access unit codec:~~

~~is configured to multiplex encoded real time video with other data to generate the data stream provided to the mobile access unit transmitter; and~~

~~is configured to demultiplex encoded real time video from the data stream provided to the mobile access unit codec by the mobile access unit receiver; and~~

wherein the base station router:

is configured to multiplex encoded real-time video with other data to generate the data stream provided by the base station router to the base station transmitter; and

is configured to demultiplex encoded real-time video from the data stream provided to the base station router by the base station receiver.

87. (Previously presented) The communication system of claim 86, further comprising:

a network bridge connected to the base station router; and

wherein the base station router is configured to receive encoded real-time video from the base station receiver and route the encoded real-time video to the base station transmitter or to the network bridge.

88. (Previously presented) The communication system of claim 87, wherein:
the mobile access units further comprise:

an audio input configured to receive real-time audio information;

wherein the mobile access unit codec is connected to the audio input;

wherein the mobile access unit codec is configured to encode real-time audio information;

wherein the mobile access unit codec is configured to multiplex encoded real-time video with at least the encoded real-time audio to generate the data stream that is provided to the transmitter; and

wherein the fixed base station router is configured to demultiplex at least encoded real-time video and real-time audio from the data stream received from the base station receiver; and

wherein the base station router is configured to route encoded real-time audio to the base station transmitter or to the network bridge.

89. (Previously presented) The communication system of claim 88, wherein the router is configured to route encoded real-time video independent of the encoded real-time audio.

90. (Previously presented) The communication system of claim 88, further comprising:

a device connected to the network bridge via a network;

a microphone connected to the audio input of one of the mobile access units;

wherein the microphone is configured to generate real-time audio including voice commands;

wherein the device is configured to receive encoded real-time audio information from the fixed base station via the network;

wherein the device is configured to identify voice commands; and

wherein the device is configured to respond to identified voice commands.

91. (Previously presented) The communication system of claim 90, wherein:
the base station router is configured to route real-time audio encoded in the third audio format to the base station transmitter or to the network bridge; and

encoded real-time audio that is received by the network bridge is sent to at least one device via the network.

92. (Currently amended) The communication system of claim 86, wherein:
the mobile access units further comprise[[s]]:

a user interface input for receiving user input;

wherein the mobile access unit codec is connected to the user interface input and is configured to encode the user interface information received from the user interface input;

wherein the mobile access codec is configured to multiplex the encoded real-time video with at least the encoded user interface information to form [[a]]the data stream that is provided to the mobile access unit transmitter.

93. (Previously presented) The communication system of claim 92, wherein the base station router is configured to independently route encoded real-time video information and encoded user interface information.

94. (Previously presented) The communication system of claim 92, further comprising:

a device connected to the network bridge via a network;

wherein the fixed base station router is configured to demultiplex encoded user interface information from the data stream provided to the base station router by the base station transceiver;

wherein the router is configured to route encoded user interface information received from the base station router to the base station transmitter or the network bridge;

wherein the device is configured to receive encoded user interface information from the fixed base station via the network; and

wherein the device is configured to respond to encoded user interface information.

95. (Previously presented) The communication system of claim 86, wherein:

the base station router is configured to multiplex the encoded real-time video that is received by the base station router in a data stream generated by the first mobile access unit into a data stream that is provided to the base station transmitter; and

the base station transmitter is configured to transmit the data stream generated by the base station codec that contains at least the encoded real-time video from the data stream generated by the first mobile access unit to a second mobile access unit.

96. (New) A mobile communication system, comprising:

means for capturing real-time video;

means for encoding the captured real-time video;

means for forming a data stream including the encoded real-time video;

means for transmitting the data stream;

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means for simultaneously receiving a second data stream including encoded real-time video;

means for decoding the encoded real-time video; and

means for displaying the decoded real-time video.